

THE STATUS OF *YPONOMEUTA EVONYMELLA* (LINNAEUS,  
1758) AND *Y. RORRELLA* (HÜBNER, 1813)  
(LEP., YPONOMEUTIDAE) IN SOUTHERN ENGLAND

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***Yponomeuta evonymella***

THIS species, the larva of which is recorded only on bird-cherry (*Prunus padus*), is a common resident in Wales, the north of England and parts of Scotland. The larvae feed in communal webs which festoon the foodplant and numbers are often so great as to cause serious defoliation. Bird-cherry occurs only sparingly in the south of England (e.g. Jermyn, 1974) and usually where the bushes have been planted by man (McClintock & Fitter, 1956).

Prior to the invention of the mercury-vapour light-trap, the moth was but rarely recorded in the south; for example, Harwood (1903) cited only a single record from Essex. In his manuscript diary, C.R.N. Burrows reported larvae of '*Yponomeuta evonymella*' on 10th June, 1889 in the Brentwood area, without naming the foodplant. When Burrows supplied his records through E.A. Fitch to Harwood for inclusion in the Victoria County History of Essex, he did not include this species. I have drawn attention to inaccuracies in the diary, which was written solely as a personal aide-memoire (Emmet, 1981: 16), and it is at least possible that Burrows, who was not a microlepidopterist, was simply recording yponomeutid larvae on *Euonymus*, which would, of course, not have been *Y. evonymella*. I know of no other report of larvae being found in the south of England, although their massive communal webs could hardly escape notice.

Since the introduction of the Robinson mv trap, there has been a dramatic increase in the number of recordings. Whereas Emmet (1981) gives only two modern records from Essex, my card index now carries 21 localities from 15 10x10km squares supplied by eight recorders, not all of them microlepidopterists. The actual total is even higher, since I do not duplicate records of common species, as this one now is. There is no reason to suppose that Essex differs much from neighbouring counties. I emphasise that all the entries are of adults, none of the early stages. Most are of single specimens, or of very low numbers.

However, on the night of 7/8 July, 1989 I recorded an estimated total of 500 in and around my trap in Saffron Walden. I made no exact count at the time, but four hours after I had emptied the trap there were still between 70 and 80 resting on the wall of the house although this was in full sunshine. I noted the weather conditions as warm, dry but humid, with an east wind of 10-15 mph.

On the same night Brian Goodey was running an mv light at Fingringhoe Wick Nature Reserve on the Colne estuary and also recorded an estimated 500 moths of this species. A.J. Dewick of Bradwell-on-Sea is not a microlepidopterist, but that night he had so many that he boxed one to show me and to inquire its identity. However, David Agassiz recorded only about a dozen at Grays on the Thames estuary, his highest total to date but small compared with the numbers in the north and east of the county.

The moths persisted at Saffron Walden, at first numbering about 50 at night, but gradually diminishing until the 24th July, when a sharp increase suggested a further influx; however, throughout the period the moths were nearly all in mint condition, perhaps indicating a steady inflow. They went on until the 31st July, when a sharp fall in temperature resulted in there being only 14 species in the trap, the average for the month, including the 31st, having been 89. There were one or two stragglers in early August. Brian Goodey continued to record *Y. evonymella* at various sites in north-east Essex, but his numbers were lower than mine in the north-west.

I made inquiries from friends in the south of England and found that the invasion had been widespread, but the Essex numbers had not been matched anywhere else. The records I received are summarised below. Localities are assigned to counties according to the Watsonian boundaries. Many of the traps were run at the site mentioned only on the one night.

Cornwall (vc1) - The Lizard, 6/7 July (B. Baker). (vc2) - St Austell, 6-10 July, several at car-park lights, "the first time I have ever had this species in Cornwall" (J. Gregory).

Wiltshire (vc7) - Savernake Forest, 8/9 July (M.F.V. Corley).

Dorset (vc9) - Holt Forest, 8/9 July, at least double figures (N. Hall); Lyme Regis, 5 August (M.F.V. Corley).

Hampshire (vc11) - Southsea, 6/7 July, c. 50 (J.R. Langmaid).

Surrey (vc17) - Box Hill, 21 July; Virginia Water, 22 July, a new record (P. Baker).

Essex (vcs 18, 19) - see above.

Hertfordshire (vc20) - Bishops Stortford, 6-25 July, several, with a peak of 14 on the 23rd (no trap 6/7, 7/8 July) (C.W. Plant).

Middlesex (vc21) - Hampstead, 4-26 July, 100 in all with peaks on the 8th (11), and the 11th (14) and the 17th (31). Previous records in 1982 (2) and 1983 (3) only (R.A. Softly).

Berkshire (vc22) - Ambarrow Court, 6/7 July, at least double figures (N. Hall); Faringdon, 7 July - 4 August, c. 25 in all, no peak; Cumnor Hurst, 19 July; Bagley Wood, 21 July (M.F.V. Corley).

Oxfordshire (vc23) - Goring, 9 July (M.F.V. Corley); Bix, 21 July, a few (M. Albertini).

Buckinghamshire (vc24) - Ashridge, 7 July; Grangelands, 8 July; Burnham, 15 July, a few at each site (M. Albertini).

Herefordshire (vc36) - Ledbury, 11 July - 10 August, a total of 35 on the seven nights when the trap was run, with a peak of 24 on 11/12 July. Previous records only in 1988 (c. six) (M.W. Harper).

Contemporary opinion (e.g. Agassiz, 1987; Emmet, 1981, 1988) suggests the possibility of an alternative foodplant, possibly another *Prunus* species, in southern England. I now regard this as unlikely. As stated above, the larval feeding is very conspicuous but has never, as far as I know, been observed in the south. The following anecdote reinforces my hypothesis. In 1970 I brought a nest of young larvae to Essex from Derbyshire. When their supply of *Prunus padus* began to run out, I put some plum leaves in the container and they were accepted. I therefore sleeved most of the larvae on the plum-tree, but they ceased feeding and all died. Those that I had kept in the container, which still held the remains of the highly aromatic bird-cherry, fed on and produced adults, though much undersized. The inference is that it was the smell of the bird-cherry that induced the larvae to take a foodplant that was in fact unsuitable.

My opinion now is that the *Y. evonymella* that occur in southern England are migrants, arriving in most years in small numbers, but in many thousands in 1989. If this is true, what is their place of origin? One possibility is the north of England and I tried to ascertain whether the species had been unusually plentiful there in 1989. No one seemed to have noticed abnormal abundance and one observer (Michael Harper) voiced the opinion that there had been fewer larval nests than usual in southern Scotland. The fact that the moths reached the south coast a day earlier than Essex suggests an influx from France, but the higher numbers in Essex and the east wind on the night in question point to northern Europe as the source. The moths did not necessarily all come from one place or at one time. It would be interesting to compare the dates on which this species was recorded with those of known migrants. Brian Goodey recorded *Ethmia terminella* Fletcher, a species new to Essex, as well as the 500 *Yponomeuta evonymella* at Fingringhoe on the night 7/8 July. Its foodplant, viper's bugloss (*Echium vulgare*) is "scattered and in small quantity, diminishing" in Essex (Jermyn, 1974) and does not grow at Fingringhoe. In Britain *E. terminella* is resident only at Dungeness and on the Sussex coast nearby. The Essex specimen could have flown up from Kent but in the prevailing east wind we think it more likely that it came from the Continent. Colin Plant reported that at Bishops Stortford, Hertfordshire (12 miles from Saffron Walden) there was an immigration of up to 50 lacewings, mostly *Chrysopa canea* (Stephens) and, in smaller numbers, *C. flava* (Linnaeus), on the night 6/7 July and again on 22/23 July, an unusual event.

#### ***Yponomeuta rorrella***

This is another species that is erratic in its appearance. There are, however, several differences from *Y. evonymella*. It is recorded only from the counties south-east of a line from the Humber to the Severn estuary and thence to the Solent. It does not occur in small numbers annually but enjoys local plenty for several years and then disappears as suddenly as it

came. It seems to persist at some favoured spot such as Dungeness but for the most part it is only a temporary resident. These habits were described to me many years ago by the late S. Wakely who, with L.T. Ford, led the revival of British interest in the Microlepidoptera. Consequently, when in 1988 I heard from Brian Goodey that he had taken five adults at light at Fingringhoe, from Barry Dickerson that he had had it in Huntingdonshire and from A.J. Boot that he had recorded it in Northamptonshire, all new county records, I predicted that we would hear more of it in 1989.

The larva feeds on white willow (*Salix alba*) and I had a brief and unsuccessful search for it with the aid of field-glasses in the Fingringhoe area in June. It was, however, no surprise when an adult came to my trap in Saffron Walden on the 25th July, to be followed by 12 more on the next three nights and by a laggard on the 10th August. Elsewhere in Essex, Brian Goodey took several in the Colchester area and David Agassiz one at Grays. In other counties, Raymond Softly recorded six at Hampstead between the 18th and 25th July and John Langmaid three at Southsea on the 24th and 25th July, the second record for Hampshire. The largest numbers were at Faringdon, Berkshire (now Oxfordshire) where Martin Corley had 30-40 in and around his trap on the night 23/24 July. He had previously recorded individuals in 1982 and 1983, but none in the years 1984-1988. He reports that there were other captures in his district, by Stephen Nash at Fernham and Philip Sterling at Oxford. These inland records are interesting, since it has been reported more frequently near the coast, there being records from all the coastal vice-counties from Hampshire to Norfolk.

I see no reason to disagree with the views of Stan Wakely, expressed 25 years ago, that *Y. rorrella* comes to southern Britain as an immigrant from the Continent. Herein it resembles *Y. evonymella*, but whereas that species fails to establish itself because of the rarity of its foodplant, there is no shortage of the cricket-bat willows favoured by *Y. rorrella*. The latter is a scarce resident whose numbers are augmented by immigration; our climate, however, is unsuitable for high numbers to be sustained.

### Acknowledgements

I wish to express my thanks to the entomologists mentioned above who have given me their records and allowed me to incorporate them in this paper.

### References

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***Ethmia terminella* Fletch. (Lep.: Oecophoridae. Ethmiinae) in Essex**

On 7-8th July 1989 at Fingringhoe Wick Nature Reserve (four miles south of Colchester) I was inundated by a blizzard of small white moths which I identified as being *Yponomeuta evonymella* L. A.M. Emmet discusses the broader aspects of this invasion elsewhere in this issue, so it is only necessary here to say that during the peak period of activity, approximately an hour either side of midnight, I counted 500 on one groundsheet alone. There were many more examples still in the air, at rest away from the groundsheet, and at the other traps and lamps I had set up. The night was ideal for recording with a good number of unusual species (for Essex) present, such as *Cnaemidophorus rhododactyla* D. & S. and *Oligia versicolor* Borkh. However, my eyes alighted on an *evonymella* that looked obviously different. This in fact turned out to be *Ethmia terminella* Fletch., a new county record. The current British distribution for this species is restricted to the Dungeness area, Kent, with an extension of range into East Sussex. In Europe its range includes southern Scandinavia and the Low Countries. The larval foodplant, *Echium vulgare*, is no longer found in north-east Essex, and it is possible that the *evonymella* and *terminella* shared a common origin — perhaps north-west Europe. It seems clear that a large scale movement of some kind occurred around this period. My thanks to A.M. Emmet and D.J.L. Agassiz.— BRIAN GOODEY, 298 Ipswich Road, Colchester, Essex CO4 4ET.

**A second brood of the Dotted Footman, *Pelosia muscerda* Hufn. (Lep.: Arctiidae) in 1989**

Whilst staying in Norfolk on 1st August 1989, among a small number of moths which came to an actinic tube on a sheet, was a female Dotted Footman, which laid about 30 eggs over a period of several hours. These soon hatched and most fed up and owing, perhaps, to the hot summer produced over 20 moths in September. I gave them lichens and algae, but they fed mainly on dead sycamore leaves.— S.M. JACKSON, 31 Hillfield, Selby, North Yorkshire YO8 0ND.

**Some notable migrants taken in the Dungeness area, Kent, during 1989**

During another year of much immigrant activity in the Dungeness and Greatstone area of S.E. Kent, the following species were the most noteworthy recorded from the three permanent mv traps in the area: *Scopula rubiginata* Hufn. male, Greatstone 17.8.89; *Mythimna l-album* L. male, Greatstone 23.10.89; *Mythimna loreyi* Dup. female, Dungeness,